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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/663,658	09/15/2000	Malcolm G. Smith SR.	5575 413436/080	2181

7590

02/13/2002

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EXAMINER

NOWLIN, APRIL A

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 02/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/663,658

Applicant(s)

SMITH ET AL

Examiner

April A. Nowlin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it contains legal phraseology such as "comprises" (see line 5). Correction is required. See MPEP § 608.01(b).

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

3. Claims 4, 5, 38 and 39 are objected to because of the following informalities:

Re claims 4 and 5: Substitute "lest" with -- least -- (see line 1).

Re claim 38: Substitute "." with -- ; -- (see line 7).

Re claim 39: Substitute "In a method" with -- A method -- (see line 1). Delete "a" preceding the term "high" (see line 6) and "a" preceding the term "glass" (see line 8). Substitute "glass material" with -- glass substrate -- (see line 8). Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 6-10, 13-15, 21-24, 27, 38, and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claims 6-8 recites the limitation "said data processing station" in line 2 of claim 6 and in line 1 of claims 7 and 8. There is insufficient antecedent basis for this limitation in the claim.
7. Claims 9 and 10 recites the limitation "said data storage device" in line 3. There is insufficient antecedent basis for this limitation in the claim.
8. Claims 13-15 recites the limitation "said protective coating" in line 2 of claim 13, lines 2 and 5 of claim 14, and line 1 of claim 15. There is insufficient antecedent basis for this limitation in the claim.
9. Claims 21-24 recites the limitation "said at least one thin film layer" in line 1 of claims 21-24. There is insufficient antecedent basis for this limitation in the claim.
10. Claim 27 recites the limitation "said transducer" in line 2. There is insufficient antecedent basis for this limitation in the claim.
11. Claim 38 recites the limitation "said magnetic layer" in line 7. There is insufficient antecedent basis for this limitation in the claim.

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12. Claim 40 recites the limitation "said transducer" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1, 2, and 6-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanbe et al. (US 6,080,476).

Kanbe et al discloses a magnetic recording medium that may be in a form of card and magnetic recording system comprising:

a magnetic recording medium 4, which serves as a data storage device as recited in claim 11, adapted to interact with a magnetic head 1, which serves as a data processing station as recited in claim 11, the data storage device 4 including a glass substrate having a predetermined shape; and at least one layer of high density, high coercivity magnetic material for storing magnetic signals;

wherein the at least one magnetic material layer is a thin film layer of high density, high coercivity magnetic material having a predetermined magnetic field orientation for storing data;

wherein the substrate has two surfaces and a protective coating is applied to at least one of the two surfaces; and

wherein the substrate is substantially planar and generally rectangular in shape and the data storage device is generally rectangular in shape.

Re claims 7 and 17, wherein the data processing station is moved relative to the substrate (see col. 6, lines 37-38).

Re claim 21, wherein the at least one thin film layer of high density, high coercivity magnetic material is a sputtered layer. (see col. 9, lines 1-2)

Re claim 22, wherein the at least one thin film layer of high density, high coercivity magnetic material is a plated layer. (see col. 8, lines 61-64)

Re claim 23, wherein the at least one thin film layer of high density, high coercivity magnetic material is an oxide layer. (see col. 2, lines 5-7)

Re claim 28, the system further comprises a first transducer for reading magnetically encoded signals from the recording medium and a second transducer for writing magnetically encoding signals in the recording medium. (see col. 6, lines 33-40)

Re claim 29, wherein the transducer is an inductive head (see col.1, lines 8-15).

Re claim 30, wherein the transducer is a thin film magnetic head (see col.1, lines 8-15).

Re claim 38, the system comprises a magnetic transducer positioned relative to a surface of the recording medium for transferring signals with respect to the recording medium and a drive member operatively coupled to the transducer. (see col. 6, lines 37-38 and col. 8, lines 1-3)

Kanbe et al fails to teach or fairly suggest a) a substrate is moved relative to a data processing station; and b) a data processing station and a substrate are moved relative to each other. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a) a substrate which is movable relative to a data processing station or b) a data processing station and a substrate movable relative to each other, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167. Thus, it would have been an obvious expedient to provide either feature, as it would have been a matter of design choice of the manufacturer.

15. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanbe et al (US 6,080,476) in view of Hashimoto et al (US 4,756,967). The teachings of Kanbe et al have been discussed above.

Kanbe et al fails to teach or fairly suggest a magnetic recording medium having a layer of magnetic material formed of nickel-cobalt.

Hashimoto et al discloses a magnetic recording medium having a layer of magnetic material formed of nickel-cobalt. In view of Hashimoto et al's teaching, it would have been obvious to artisan of ordinary skill in the art at the time the invention was made to employ a layer of magnetic material formed of nickel-cobalt to the teachings of Kanbe et al for the purpose of improving the signal to noise ratio, reducing the intrinsic media noise at high linear recording density.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Arita et al (US 5,928,759) and Kudo et al (US 4,722,859) discloses a magnetic recording medium.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to April A. Nowlin whose telephone number is (703) 605-1219. The examiner can normally be reached on Monday - Friday from 7:30AM - 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (703) 305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7382 for After Final communications.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [april.nowlin@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the official Gazette of the Patent and

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Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



AAN
February 6, 2002



KARL D. FRECH
PRIMARY EXAMINER